**Shielded Power Inductors – LPS6225**

- Low DCR; high current; shielded construction
- Perfect for backlight applications
- AEC-Q200 Grade 1 qualified (–40°C to +125°C ambient)

**Designer’s Kit C349** contains 3 each of all values

**Core material**  Ferrite

**Core and winding loss**  See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

**Environmental**  RoHS compliant, halogen free

**Terminations**  RoHS compliant matte tin over nickel over silver.
Other terminations available at additional cost.

**Weight**  309 – 331 mg

**Ambient temperature**  –40°C to +85°C with (40°C rise) Irms current.

**Maximum part temperature**  +125°C (ambient + temp rise). Derating.

**Storage temperature**  Component: –40°C to +125°C. Tape and reel packaging: –40°C to +80°C

**Resistance to soldering heat**  Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)**  1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**  38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**Recommended pick and place nozzle**  OD: 6.2 mm; ID: ≤ 3.1 mm

**PCB washing**  Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

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### Table: Inductance, DCR, SRF, Isat, Irms

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance max 20% (µH)</th>
<th>DCR max (Ohms)</th>
<th>SRF typ (MHz)</th>
<th>Isat (A)</th>
<th>Irms (A)</th>
<th>20°C rise</th>
<th>40°C rise</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPS6225-122MR</td>
<td>0.045</td>
<td>100</td>
<td>3.9</td>
<td>4.1</td>
<td>1.0</td>
<td>1.40</td>
<td></td>
</tr>
<tr>
<td>LPS6225-332MR</td>
<td>0.050</td>
<td>68</td>
<td>3.5</td>
<td>3.6</td>
<td>1.0</td>
<td>1.35</td>
<td></td>
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<tr>
<td>LPS6225-472MR</td>
<td>0.060</td>
<td>53</td>
<td>3.0</td>
<td>3.1</td>
<td>0.90</td>
<td>1.30</td>
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<tr>
<td>LPS6225-682MR</td>
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<td>2.6</td>
<td>2.8</td>
<td>0.80</td>
<td>1.10</td>
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<tr>
<td>LPS6225-102MR</td>
<td>1.0</td>
<td>178</td>
<td>5.3</td>
<td>5.4</td>
<td>1.1</td>
<td>1.65</td>
<td></td>
</tr>
</tbody>
</table>

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1. Please specify termination and packaging codes:

   **LPS6225-106MRC**

   **Termination:**  
   R = RoHS compliant matte tin over nickel over silver. Special order, added cost:  
   Q = RoHS tin-silver-copper (95.5/4/0.5)  
   or P = non-RoHS tin-lead (63/37).

   **Packaging:**  
   C = 7″ machine-ready reel.  
   B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter C instead.

   **D** = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (2500 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using Agilent/HP 8753ES or equivalent.

5. DC current at 25°C that causes the specified inductance drop from its value without current. Click for temperature derating information.

6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. Click for temperature derating information.

7. Electrical specifications at 25°C. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

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**Coilcraft**

[www.coilcraft.com](http://www.coilcraft.com)
Shielded SMT Power Inductors – LPS6225 Series

Typical L vs Current

Typical L vs Frequency

Packaging 750/7” reel; 2500/13” reel  Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 2.57 mm pocket depth

NOTE NEW PART ORIENTATION  Parts are rotated 90° in the packaging tape compared to previous versions of this product.

Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0.13 mm.
For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0.13 mm).

Packaging 750/7” reel; 2500/13” reel  Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 2.57 mm pocket depth